

CENTRAL PUGET SOUND REGIONAL TRANSIT AUTHORITY

BEFORE THE NATIONAL TRANSPORTATION SAFETY BOARD

NTSB Accident Number: RRD-18MR001

Class: Major

December 18, 2017

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FINAL SUBMISSION

OF THE

CENTRAL PUGET SOUND REGIONAL TRANSIT AUTHORITY

This Final Submission of the Central Puget Sound Regional Transit Authority (“Sound Transit”) is an update to the NTSB of the implementation of additional operational safety measures on the Lakewood Subdivision in consideration of the derailment of Amtrak Train No. 501, on December 18, 2017 near Du Pont, Washington.

Status of Positive Train Control

The wayside elements of the Positive Train Control system were integrated with the BNSF back office and became operational on the Lakewood Subdivision on February 13, 2018. All Sound Transit trains are PTC-operational. Sound Transit continues to work with BNSF as they progress interoperability work with other users of the corridor.

Collaboration with Other Parties on Additional Safety Measures

Sound Transit has conducted meetings every other week with Amtrak, BNSF, and WSDOT Rail. In these meetings, the parties continue to review the operating corridor for potential improvements, discuss the actions, and the status of such actions, that the parties intend to complete before Amtrak returns to revenue service on the Lakewood Subdivision. For example, here are the major safety topics that Sound Transit, Amtrak, BNSF, and WSDOT Rail have been discussing:

- PTC functionality and interoperability;
- training and qualification of Amtrak crews, in compliance with its new qualification plan, that will be implemented before resumption of Amtrak service on the Lakewood corridor;
- review and acceptance of train schedules and string-lines for service resumption;
- new and updated planning and safety documentation, including an Operations Hazard Analysis with input from FRA, the NTSB, BNSF, Amtrak, and Amtrak engineers and conductors being certified to operate on the Lakewood Subdivision;
- modifications to the Lakewood Subdivision Timetable and Amtrak’s General Orders;
- graduated speed reductions in the approach to the location of the accident; and
- additional signage.

Sound Transit has also been in contact with Tacoma Rail and the FRA regarding the issues discussed in these meetings and proposed changes to operations.

Safety Issues When PTC is Not Operating.

While PTC provides an added layer of safety, reliance on this technology may make operations when PTC is not operable more dangerous than before PTC was implemented. As a result, Sound Transit is working with its operator and tenant railroads to implement other non-PTC safety measures before Amtrak resumes revenue service.

1. **Graduated speed reduction in the approach to the curve.** Sound Transit intends to implement a graduated speed reduction in the approach to the curve from 79 mph (60 mph when PTC is not operating, in accordance with FRA regulations) to 50 mph to 30 mph with accompanying signage. Additional speed signage for speed changes will provide additional opportunities for the engineer to maintain situational awareness in the approach to the curve. Amtrak concurs with this measure. When PTC is not operating, passenger trains should not be exceeding 60 mph

maximum speed under FRA regulation. Therefore, in a non-PTC environment, there will be no speed step-downs greater than 20 mph.

2. **Communication Focus Zone.** Although there will be no speed step-downs of greater than 20 mph when PTC is not operational, Sound Transit will add communication “focus zone” instructions for Amtrak engineers and conductors into the timetable (as it already does for BNSF engineers and conductors operating Sound Transit trains). Sound Transit believes that such a measure is prudent under these circumstances, although special communication safety instructions for Amtrak train crew in BNSF timetables are not standard practice for BNSF or Amtrak.

Other Safety Improvements to the Lakewood Subdivision

Sound Transit will continue to work with FRA, BNSF, WSDOT, Amtrak, Tacoma Rail, and railroads’ engineers and conductors to implement other measures to increase the safety of the Lakewood Subdivision, including:

1. **Grade Crossings.** Sound Transit is working with the Washington State Department of Transportations, Highways Division to eliminate three at-grade crossings to the Lakewood Subdivision as part of the I-5, Mounts Road – Thorne Lane Corridor Improvements Project.
2. **Crest of Grade Signs.** Sound Transit is considering the crest of grade signs recently suggested by the Brotherhood of Locomotive Engineers.
3. **Recommendations from the NTSB.**
4. **Recommendations that result from the Operational Hazard Analysis.**

Respectfully,



Martin Young
Commuter Rail Operations Manager
Sound Transit

CERTIFICATE OF SERVICE

I certify that I have electronically served a copy of this Final Submission of the Central Puget Sound Regional Transit Authority upon the following in accordance with 49 CFR §845.27 on April 11, 2019.

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Sincerely,



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